Nokia Customer Care
RH-47 Series Cellular Phones

4 - Service Tools

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Table of Contents

Page No

List of Recommended Service Tools 5
New service accessories for RH-47 5
Spare parts for RH-47 service accessories 5
Re-used service accessories 6
New Service Tools for RH-47 8
Re-used Service Tools for RH-47 11

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List of Recommended Service Tools

New service accessories for RH-47

Type designator	Part code	Description
MJ-21	770646	Module Repair Jig
SF-20	770702	POS flash adapter
DA-17	770701	Adapter for JBV-1
SS-33	780340	A-cover opening Tool
RJ-43	0780348	Soldering Jig (Lead Free process compatible)
SK-10	0080986	Coupler Kit BT and GSM, consisting of SA-32 and SA-52

Spare parts for RH-47 service accessories

Type designator	Part code	Description
No type	0770557	Testpins DE-50-T45 for MJ-21 Test-IF, MMC, Audio IF (10 pcs.)
No type	0770442	Testpins 100-GSS-10-3.8-G for MJ-21 UI board connection (10 pcs.)
No type	0770450	Testpins SX-1-J-2.0-G for SF-20 (10 pcs.)
No type	0770445	Testpins RSS-100-CR-PLTD for MJ-21 SIM / Battery IF (10 pcs)
No type	0770446	Testpins 100-GSS-19-3.8-G for MJ-21 RF board (10 pcs.)
No type	0770543	Testpins IDI S-0-J-2.2G for DA-17 Test-IF (10 pcs.); disassembly needed !
No type	780360	AQFLX Spare Flex Foil for MJ-21 (1 pcs.)

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Re-used service accessories

Type designator	Part code	Description
ACF-8	0680032	Power supply (part of FPS-8 sales package)
ACP-8E	0675195	Charger for JBT-9 Output: 5.3V DC, 500 mA; EU version
ACP-8U	0675196	Charger for JBT-9 Output: 5.3V DC, 500 mA; US. version
ADS-4	0730222	Audio testcable for JBA-8
ADS-7	0730261	Coaxial cable SMA m to BNC m; 0,9m; 50Ohm
AXP-8	0730298	Parallel bi-directional printer cable (part of FPS-8 sales package)
AXS-4	0730090	Serial cable 9 pol. Sub-D (part of FPS-8 sales package)
CA-5S	0730283	DC cable for e.g. phone to JBV-1 connection for EM calibration
DAU-9S	0730108	Serial data cable with modular connector.9 pole Sub-D f <=> 8 pole modular
FLC-2	0730185	Power supply cable from FPS-8/C to SF-20.Banana connectors to 3,5 mm DC plug, 1,2 meters
FLS-4S	0080541	POS flash prommer for E&A incl. ACF-8 Power supply
FLS-4S	0080542	POS flash prommer for for APAC incl. ACF-8 Power supply
FLS-4S	0080543	POS flash prommer for for US incl. ACF-8 Power supply
FPS-8	0080321	Flash prommer to be used with SF-20 or JBV-1 plus product specific adapter.Sales pack includes:FPS-8 Prommer, FPS-8 SW activation & installation instr., FPS-8 activation sheet, power supply ACF-8, AXS-4 service cable (2x 9 pol. Sub-D), AXP-8 Bi-directiona
FPS-8C	0080396	8 x parallel flash prommer box
JBA-8	0770320	Audio testbox (differential to single ended)
JBT-9	81490	Bluetooth Test & Interface Box
JBV-1	770298	Flash/Test docking station with generic data&power interfaces
JXS-2	0770673	Optional shielded box for RF autotuning and testing in specific service environment in US. To be used with DA-1 adapter
MJS-54	0770349	Soldering Jig for PA
PCS-1	0730012	Power cable to connect e.g. JBV-1 to FPS-8.2 x Banana connectors to 5,5 mm DC plug.
PKD-1	0750018	Software Security Dongle for service SW
SCT-10	0730207	Coaxial cable SMA m to BNC m; 1,5m; 50Ohm
SF12	0080346	8 MB SRAM memory for FPS-8 (2 pcs. needed = +16MB)
SPS-1	0770381	Stencil paste spreader
SRT-6	0770431	Opening tool
ST-10	0770741	Stencil for PA

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XCS-1	0730218	Service cable for connection between FLS-4S and SF-20.
XCS-4	0730178	Modular cable for e.g. connection between FPS-8 and SF-20.
XRE-2	0730237	Coaxial Cable SMA m to SMA m; 1m; 50 Ohm
XRF-1	0730085	RF cable to connect e.g. module repair jig to RF meas-urement equipment.SMA to N-Connector ca. 610mm
XRS-6	0730231	RF cable to connect e.g. module repair jig to RF meas-urement equipment.SMA to N-Connector ca. 610mm
No type	No code	Standard USB A to USB B cable for FLS-4 USB flash-ing and JBV-1 SW update.

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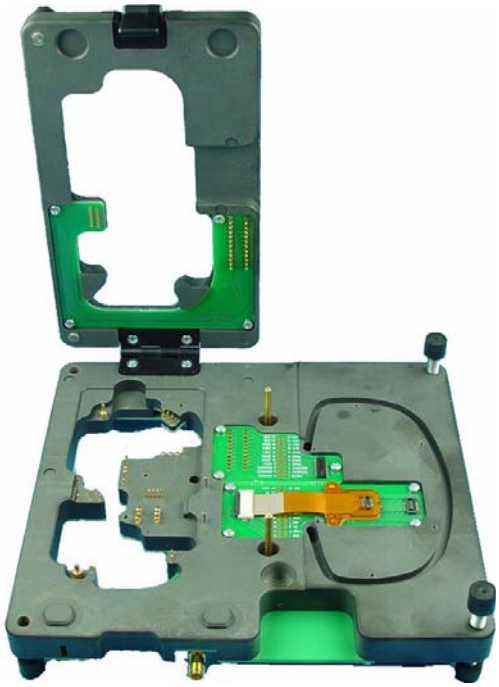
New Service Tools for RH-47

Type / Code	Description	Picture
MJ-21 0770646	The module repair jig is used for testing and alignment of the engine module's RF and BB part. Optional support for connecting complete user interface board. Implemented are: - SIM interface - MMC interface - BT coupler - RF coupler - Headset connector - External speaker - External microphone Nominal supply voltage in "regulated" mode is 6-12V DC. In "bypass" mode the supply voltage can be up to 4.3 V DC secured by an overvoltage protection.	
SF-20 0770702	POS flash adapter is used with FLS-4S or FPS-8 flash adapter as a battery interface. It interfaces to battery and FBUS for SW updates of the device. The supply voltage can be up to 4V DC and is secured via overvoltage protection.	

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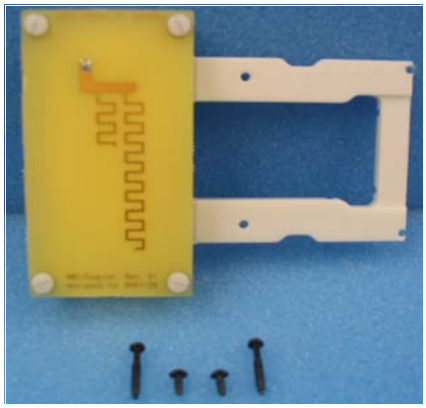
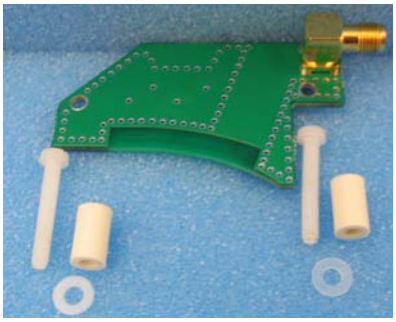
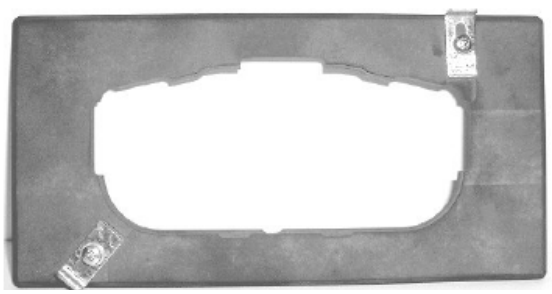
DA-17 0770701	Docking station adapter for JBV-1 adapter. 850-1900 MHz GSM coupler (SA-32) and BT coupler (SA-52) are optional assemblies. Together with JBV-1 it supports: - RF and BB testing - RF and BB calibration - SW updating - IMEI re-programming Interfaces with the battery connector, SIM and FBUS. DA-17 has a switch to select either "JVB-1 MODE" or "4V LOCAL MODE". In "JBV-1 MODE", DA-17 operates as any other docking station adapter. The "4V LOCAL MODE" is implemented for two specific reasons: - RF autotuning - SW update/re-flashing **Do not use "4V LOCAL MODE" for any other operations, such as EM calibration.**	
SK-10 0080986	BT & GSM coupler kit. The kit is an optional assembly for the DA-17 adapter. The kit consists of: - SA-32 coupler for GSM850/1900 testing and alignment and also for GSM 900/1800 testing with frame and screws. - SA-52 BT coupler for Bluetooth BER testing under critical environment. Includes screws and assembly material.	SA-32:  SA-52: 
RJ-43 0780348	Soldering jig to hold the main PWB during soldering machine solder process with Lead Free Process tested material.	

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SS-33 0780340	Opening tool for removing the A-cover.	

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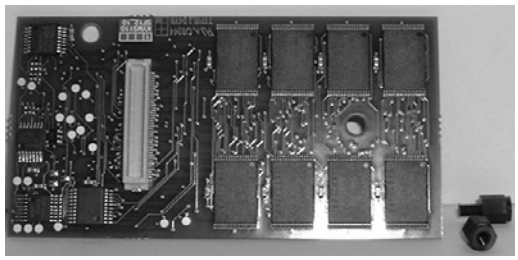
Re-used Service Tools for RH-47

Type Designator	Description	Picture
JBV-1 0770298	Flash/Test docking station with generic data and power interfaces. Main functions are: - adjustable VBATT calibration voltage, current measurement limit voltage, "VCHAR", current measurement calibration current "ICHAR" - adjustable ADC calibration voltage via BTEMP and BSI signal - BTEMP and BSI calibration resistor - signals from FBUS to the phone via parallel jig - control via FBUS or USB - Flash OK/FAIL indication - RF alignment via coupler (with shielded JXS-2 box) - RF testing via coupler with DA-17 plus SK-10 - BT testing via coupler with DA-17 plus SK-10 In the calibration mode JBV-1 is powered by an external 11-16V DC power supply . In flashing, power for the phone can be taken from FPS-8 or external power supply 11-16V DC.	
FPS-8 0080321	Flash prommer is used with SF-20 or JBV-1 plus product specific adapter. Sales pack includes: FPS-8 Prommer, FPS-8 SW activation & installation instr., FPS-8 activation sheet, power supply ACF-8, AXS-4 service cable (2x 9 pol. Sub-D), AXP-8 Bi-directional parallel cable	
SF12 0080346	8 MB SRAM memory for FPS-8 2 additional modules needed to be assembled in FPS-8 to get the minimum SRAM of 24MB.	
FLS-4S 0080541	POS flash prommer for E&A incl. ACF-8 Power supply	
FLS-4S 0080542	POS flash prommer for APAC incl. ACF-8 Power supply	
FLS-4S 0080543	POS flash prommer for US incl. ACF-8 Power supply	

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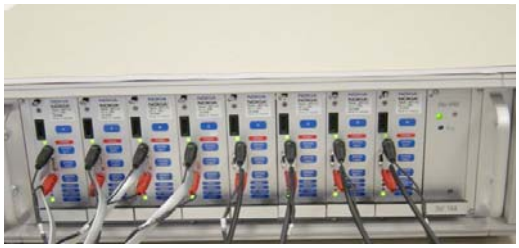
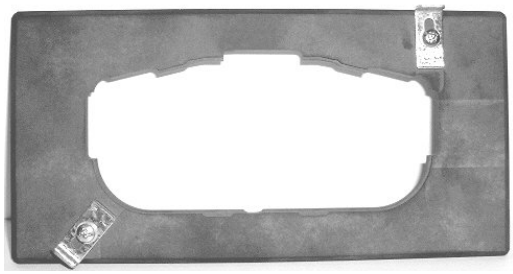
FPS-8C 0080396	8 x parallel flash prommer box	
PKD-1 0750018	Software security dongle for service SW	
MJS-74 0770464	Soldering jig to hold the main PWB during machine soldering process	

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JXS-2 0770673	Shielded box for RF autotuning and testing in specific service environment in USA. Internal RF cables are included. Used with the DA-17 adapter.	
JBT-9 0081490	Bluetooth test & interface box	
ACP-8U 0675196	Charger for JBT-9 Output: 5.3V DC, 500 mA; US Version	No picture available

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JBA-8 0770320	DCT-4 audio test-box for audio signal measuring.	Front view: Back view:
DAU-9S 0730108	Serial data cable with modular connector. 9 pole Sub-D f <=> 8 pole modular	
XCS-4 0730178	Modular cable for connecting FPS-8 and SF-20, for example.	

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XCS-1 0730218	Service cable for connecting FLS-4S and SF-20.	
FLC-2 0730185	Power supply cable from FPS-8/C to SF-20. Banana connectors to 3,5 mm DC plug, 1,2 meters.	
CA-5S 0730283	DC cable for a phone to JBV-1 connection, used in EM calibration, for example.	

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PCS-1 0730012	Power cable to connect e.g. JBV-1 to FPS-8. 2 x Banana connectors to 5,5 mm DC plug.	
XRS-6 0730231	RF cable to connect e.g. module repair jig to RF measurement equipment. SMA to N-Connector ca. 610mm	
XRF-1 0730085	RF cable to connect e.g. module repair jig to RF measurement equipment. SMA to N-Connector ca. 610mm	
ADS-4 0730222	Audio and power supply cable for JBA-8 test box.	

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ADS-7 0730261	Coaxial cable SMA m to BNC m; 0,9m; 50Ohm	
SCT-10 0730207	Coaxial cable SMA m to BNC m; 1,5m; 50Ohm	
XRE-2 0730237	Coaxial cable SMA m to SMA m; 1m; 50 Ohm	

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AXS-4	The AXS-4 D9-D9 service cable is used to connect two 9 pin D connectors e.g. between PC and FPS-8. Cable length is 2 meters.	
Commodity item	Standard USB A to USB B cable for FLS-4 USB flashing and JBV-1 SW update.	
SRT-6 0770431	Opening tool	
ST-10 0770741	Stencil PA (10 x 12 mm, for Hitachi PF08130-TB CAS)	

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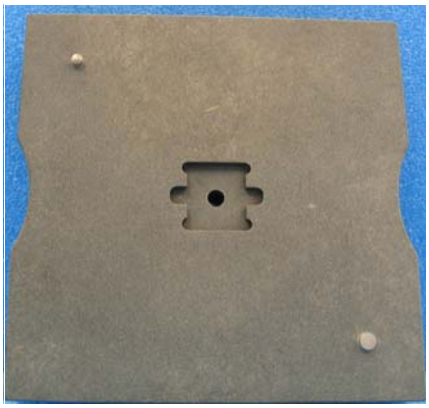
MJS-54 0770349	Soldering jig for LGA's 10x12 mm	
SPS-1 0770381	Stencil paste spreader	

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